

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-5. (Canceled)

6. (Currently Amended) An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel forming region, and source and drain regions with said channel forming region extending therebetween, a gate insulating film covering the semiconductor film, and a gate electrode over said gate insulating film, wherein said gate insulating film has a first contact hole;

an interlayer insulating film formed over said thin film transistor, wherein said interlayer insulating film has a second contact hole;

an electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions through said first contact hole and said second contact hole, wherein said electrode is in contact with said one of said source and drain regions in said first contact hole;

a leveling film comprising an organic resin formed over said ~~thin film transistor~~ electrode, wherein said leveling film has a third contact hole; and

a pixel electrode formed over said leveling film and electrically connected to said ~~one of the source and drain regions of the thin film transistor through said electrode;~~ said electrode through said third contact hole,

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film,

wherein said third contact hole is located apart from said first contact hole and said second contact hole, and

wherein said pixel electrode is transparent.

7. (Currently Amended) An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel forming region, and source and drain regions with said channel forming region extending therebetween, a gate insulating film covering the semiconductor film, and a gate electrode over said gate insulating film, wherein said gate insulating film has a first contact hole;

an interlayer insulating film formed over said thin film transistor, wherein said interlayer insulating film has a second contact hole;

an electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions through said first contact hole and said second contact hole, wherein said electrode is in contact with said one of said source and drain regions in said first contact hole;

a leveling film comprising an organic resin formed over said ~~thin film transistor~~ electrode, wherein said leveling film has a third contact hole; and

a pixel electrode formed over said leveling film and electrically connected to ~~one of said source and drain regions of the thin film transistor;~~ said electrode through said third contact hole,

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film,

wherein said third contact hole does not overlap said first contact hole and said second contact hole, and

wherein said pixel electrode is transparent.

8. (Canceled)

9. (Currently Amended) An electro-optical display device comprising:

a first substrate having an insulating surface;

a blocking layer formed over said first substrate;

at least one thin film transistor formed over said ~~first substrate~~ blocking layer, said thin film transistor comprising a semiconductor film including a channel forming region, and source and drain regions with said channel forming region extending therebetween, a gate insulating film covering the semiconductor film, and a gate electrode over said gate insulating film, wherein said gate insulating film has a first contact hole;

an interlayer insulating film formed over said thin film transistor, wherein said interlayer insulating film has a second contact hole;

an electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions through ~~[[a]]~~ said first contact hole of said interlayer insulating film; and said second contact hole, wherein said electrode is in contact with said one of said source and drain regions in said first contact hole;

~~a leveling film comprising~~ an organic resin film formed over said ~~thin film transistor and said electrode,~~ wherein said organic resin film has a third contact hole;
and

a pixel electrode formed over said ~~leveling~~ organic resin film and electrically connected to ~~said one of said source and drain regions of the thin film transistor through~~ said electrode through said third contact hole, wherein said pixel electrode contacts said electrode ~~through a second~~ in said third contact hole ~~of said leveling film;~~

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film,

wherein said ~~second~~ third contact hole does not overlap said first contact hole and said second contact hole,

wherein said semiconductor film is surrounded by said blocking layer and said gate insulating film, and

wherein said pixel electrode is transparent.

10.-18. (Canceled)

19. (Previously Presented) The electro-optical display device according to any one of claims 6, 7 and 9, further comprising a liquid crystal and a second substrate wherein said liquid crystal is disposed between said first substrate and said second substrate

20. (Canceled)

21. (Currently Amended) The electro-optical device according to any one of claims ~~6, 7 and 9~~ 6 and 7, wherein said leveling film comprises polyimide.

22.-38. (Canceled)

39. (Currently Amended) A camera having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel forming region, and source and drain regions with said channel forming region extending therebetween, a gate insulating film covering the semiconductor film, and a gate electrode over said gate insulating film, wherein said gate insulating film has a first contact hole;

an interlayer insulating film formed over said thin film transistor, wherein said interlayer insulating film has a second contact hole;

an electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions through said first contact hole and said second contact hole, wherein said electrode is in contact with said one of said source and drain regions in said first contact hole;

a leveling film comprising an organic resin formed over said ~~thin film transistor~~ electrode, wherein said leveling film has a third contact hole; and

a pixel electrode formed over said leveling film and electrically connected to said ~~one of the source and drain regions of the thin film transistor through said electrode;~~ said electrode through said third contact hole,

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film,

wherein said third contact hole is located apart from said first contact hole and said second contact hole, and

wherein said pixel electrode is transparent.

40. (Currently Amended) A camera having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel forming region, and source and drain regions with said channel forming region extending therebetween, a gate insulating film covering the semiconductor film, and a gate electrode over said gate insulating film, wherein said gate insulating film has a first contact hole;

an interlayer insulating film formed over said thin film transistor, wherein said interlayer insulating film has a second contact hole;

an electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions through said first contact hole and said second

contact hole, wherein said electrode is in contact with said one of said source and drain regions in said first contact hole;

a leveling film comprising an organic resin formed over said ~~thin film transistor~~ electrode, wherein said leveling film has a third contact hole; and

a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor; said electrode through said third contact hole,

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film,

wherein said third contact hole does not overlap said first contact hole and said second contact hole, and

wherein said pixel electrode is transparent.

41. (Canceled)

42. (Currently Amended) A camera having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

a blocking layer formed over said first substrate;

at least one thin film transistor formed over said ~~first substrate~~ blocking layer, said thin film transistor comprising a semiconductor film including a channel forming region, and source and drain regions with said channel forming region extending therebetween, a gate insulating film covering the semiconductor film, and a gate electrode over said gate insulating film, wherein said gate insulating film has a first contact hole;

an interlayer insulating film formed over said thin film transistor, wherein said interlayer insulating film has a second contact hole;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions through ~~[[a]]~~ said first contact hole of said interlayer insulating film; and said second contact hole, wherein said electrode is in contact with said one of said source and drain regions in said first contact hole;

~~a leveling film comprising an organic resin film formed over said thin film transistor and said electrode, wherein said organic resin film has a third contact hole;~~
and

a pixel electrode formed over said ~~leveling~~ organic resin film and electrically connected to ~~said one of said source and drain regions of the thin film transistor through~~ said electrode through said third contact hole, wherein said pixel electrode contacts said electrode ~~through a second in said third contact hole of said leveling film;~~

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film,

wherein said ~~second~~ third contact hole does not overlap said first contact hole and said second contact hole,

wherein said semiconductor film is surrounded by said blocking layer and said gate insulating film, and

wherein said pixel electrode is transparent.

43. (Canceled)

44. (Previously Presented) The camera according to any one of claims 39, 40 and 42 further comprising a liquid crystal and a second substrate wherein said liquid crystal is disposed between said first substrate and said second substrate.

45. (Currently Amended) The camera according to any one of claims ~~39, 40 and 42~~ 39 and 40 wherein said leveling film comprises polyimide.

46. (Currently Amended) The camera according to any one of claims 39, 40 and 42 wherein said channel forming region comprises crystalline silicon.

47. (Currently Amended) The camera according to any one of claims 39, 40 and 42 wherein said gate insulating film ~~comprises~~ is a silicon oxide film.

48.-58. (Canceled)

59. (New) An electro-optical display device comprising:

a first substrate having an insulating surface;

a blocking layer formed over said first substrate;

at least one thin film transistor formed over said blocking layer, said thin film transistor comprising a semiconductor film including a channel forming region, and source and drain regions with said channel forming region extending therebetween, a gate insulating film covering the semiconductor film, and a gate electrode over said gate insulating film, wherein said gate insulating film has a first contact hole;

an interlayer insulating film formed over said thin film transistor, wherein said interlayer insulating film has a second contact hole;

an electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions through said first contact hole and said second contact hole, wherein said electrode is in contact with said one of said source and drain regions in said first contact hole;

an organic resin film formed over said electrode, wherein said organic resin film has a third contact hole; and

a pixel electrode formed over said organic resin film and electrically connected to said electrode through said third contact hole, wherein said pixel electrode contacts said electrode in said third contact hole;

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film,

wherein said third contact hole is located apart from said first contact hole and said second contact hole,

wherein said semiconductor film is surrounded by said blocking layer and said gate insulating film, and

wherein said pixel electrode is transparent.

60. (New) A camera having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

a blocking layer formed over said first substrate;

at least one thin film transistor formed over said blocking layer, said thin film transistor comprising a semiconductor film including a channel forming region, and source and drain regions with said channel forming region extending therebetween, a gate insulating film covering the semiconductor film, and a gate electrode over said gate insulating film, wherein said gate insulating film has a first contact hole;

an interlayer insulating film formed over said thin film transistor, wherein said interlayer insulating film has a second contact hole;

an electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions through said first contact hole and said second contact hole, wherein said electrode is in contact with said one of said source and drain regions in said first contact hole;

an organic resin film formed over said electrode, wherein said organic resin film has a third contact hole; and

a pixel electrode formed over said organic resin film and electrically connected to said electrode through said third contact hole, wherein said pixel electrode contacts said electrode in said third contact hole;

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film,

wherein said third contact hole is located apart from said first contact hole and said second contact hole,

wherein said semiconductor film is surrounded by said blocking layer and said gate insulating film, and

wherein said pixel electrode is transparent.

61. (New) The electro-optical display device according to any one of claims 6, 7, 9 and 59, wherein said electro-optical display device is a liquid crystal display device.

62. (New) The electro-optical display device according to any one of claims 6, 7, 9 and 59, wherein said gate electrode does not overlap said pixel electrode.

63. (New) The camera according to any one of claims 39, 40, 42 and 60, wherein said gate electrode does not overlap said pixel electrode.

64. (New) The electro-optical display device according to any one of claims 9 and 59, wherein said blocking layer is a silicon oxide film.

65. (New) The camera according to any one of claims 42 and 60, wherein said blocking layer is a silicon oxide film.

66. (New) The electro-optical display device according to claim 59, further comprising a liquid crystal and a second substrate wherein said liquid crystal is disposed between said first substrate and said second substrate.

67. (New) The camera according to claim 60, further comprising a liquid crystal and a second substrate wherein said liquid crystal is disposed between said first substrate and said second substrate.

68. (New) The electro-optical device according to any one of claim 9 and 59, wherein said organic resin film comprises polyimide.

69. (New) The camera according to any one of claim 42 and 60, wherein said organic resin film comprises polyimide.

70. (New) The electro-optical device according to any one of claim 6, 7, 9 and 59, wherein said channel forming region comprises crystalline silicon.

71. (New) The camera according to claim 60, wherein said channel forming region comprises crystalline silicon.

72. (New) The electro-optical device according to any one of claim 6, 7, 9 and 59, wherein said gate insulating film is a silicon oxide film.

73. (New) The camera according to claim 60, wherein said gate insulating film is a silicon oxide film.